03040204-08

(Little Pee Dee River)

General Description

Watershed 03040204-08 (formerly 03040204-070 plus Cedar Creek, Black Creek and Palmetto Swamp) is located in Marion and Horry Counties and consists primarily of the ***Little Pee Dee River*** and its tributaries from the Lumber River to its confluence with the Pee Dee River. The watershed occupies 217,821 acres of the Upper and Lower Coastal Plain regions of South Carolina. Land use/land cover in the watershed includes: 45.3% forested wetland, 30.3% agricultural land, 16.1% forested land, 4.1% urban land, 2.3% scrub/shrub land, 1.1% water, and 0.8% nonforested wetland.

This section of the Little Pee Dee River accepts drainage from its upper reaches, followed by Cedar Creek (Cow Bog, Juniper Bay, Spring Bay, Mossy Bay, Back Swamp, Cartwheel Branch, Cartwheel Bay, Fifteenmile Bay, Jet Branch), Brown Swamp (White Oak Creek, Fowler Branch), Black Creek (Flat Bay), and Turkey Pen Swamp (Gunter Bay, Hannah Bay, Wolf Pit Bay, Mill Bay). Cartwheel Bay is a Heritage Trust Preserve. The Lake Swamp Watershed enters the river next, followed by Dawsey Swamp, Tredwell Swamp (Mill Swamp), The Falls, Back Swamp (Fox Bay), and Sandy Slough. Little Reedy Creek (Cane Bay, Mill Bay) merges with Reedy Creek (Big Sister Bay, Little Sister Bay, Reedy Creek Bay) in Smith Millpond and then flows through Leggett Millpond before draining into the Little Pee Dee River downstream of Sandy Slough. Further downstream, Cypress Creek enters the river, followed by Marsh Creek, Alligator Run, the Brunson Swamp Watershed, Palmetto Swamp (Little Palmetto Swamp, Ratan Branch), and Giles Bay.

Singleton Creek (Dwight Creek, Red Hill Branch, Alfred Creek, Bunker Hill Creek, Church Branch, Running Branch) drains into another Brown Swamp as does Brown Bay, Knotty Branch, Cooper Branch, Davis Branch, Juniper Bay, Calhoun Branch, Todd Mill Branch, Lewis Mill Branch, and Alkinson Branch. Brown Swamp then flows through Jordan Lake and Old River Lake before entering the river. Hunting Swamp (Boyd Canal, Jenkins Swamp, Cedar Grove Branch, Cates Bay, Forney Branch, Brownway Branch, Big Cypress Swamp, Sarah Branch, Pawley Swamp) enters the system at the base of the watershed followed by Russ Creek (Jiles Creek, Russ Lake) near the Brittons Neck area. Several oxbow lakes drain into the Little Pee Dee River including Cox Lake, Newfound Lake, Gunter Lake, Johnson Big Lake, Cannon Lake, Jordan Lake, Old River Lake, Richard Lake, Sampson Lakes, and Dead River. There are a total of 326.3 stream miles and 668.8 acres of lake waters in this watershed. All streams in the watershed are classified ORW with the following exceptions: Brown Swamp and White Oak Creek in the upper portion of the watershed, and another Brown Swamp further downstream are classified FW* (dissolved oxygen not less than 4.0 mg/l and pH between 5.0 and 8.5) and their tributaries are classified FW; Hunting Swamp and Palmetto Swamp and their tributaries are classified FW.

Surface Water Quality

Station #	Type	Class	Description
PD-351	W/BIO	ORW	CEDAR CREEK AT S-26-23
PD-037	S/W	FW*	WHITE OAK CREEK AT S-34-31
PD-701	BIO	ORW	DAWSEY SWAMP AT SR-99
PD-042	P/W	ORW	LITTLE PEE DEE RIVER AT US 501, GALIVANT'S FERRY
RS-01042	RS01	ORW	REEDY CREEK AT CR 39, 1 MI NE OF RAINS
PD-189	P/W	ORW	LITTLE PEE DEE RIVER AT US 378 12 MI W. OF CONWAY
PD-350	W/INT	ORW	LITTLE PEE DEE RIVER AT PUNCHBOWL LANDING
PD-702	BIO	FW	PALMETTO SWAMP AT SR 99

Cedar Creek (PD-351) – Aquatic life and recreational uses are fully supported. This is a blackwater system, characterized by naturally low pH and dissolved oxygen conditions. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. A significant decreasing trend in turbidity suggests improving conditions for this parameter.

White Oak Creek (PD-037) – Aquatic life uses are partially supported due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. There is also a significant increasing trend in five-day biological oxygen demand. There is a significant decreasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Dawsey Swamp (PD-701) – Aquatic life uses are fully supported based on macroinvertebrate community data.

Little Pee Dee River – There are three SCDHEC monitoring sites along this section of the Little Pee Dee River. This is a blackwater system, characterized by naturally low pH and dissolved oxygen conditions. At the upstream site ***(PD-042)***, aquatic life uses are not supported due to dissolved oxygen and pH excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. There is also a significant increasing trend in turbidity. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus concentration suggest improving conditions for these parameters. Recreational uses are fully supported at this site.

At the midstream site ***(PD-189)***, aquatic life and recreational uses are fully supported. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Significant decreasing trends in five-day biochemical oxygen demand, total phosphorus concentration, and total nitrogen concentration suggest improving conditions for these parameters. At the furthest downstream site ***(PD-350)***, aquatic life and recreational uses are again fully supported. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters.

Reedy Creek (RS-01042) – Aquatic life and recreational uses are fully supported. This is a blackwater system, characterized by naturally low dissolved oxygen conditions. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations.

Palmetto Swamp (PD-702) – Aquatic life uses are fully supported based on macroinvertebrate community data.

A fish consumption advisory has been issued by the Department for mercury and includes the ***Little Pee Dee River*** and ***Russ Creek*** *within this watershed (see advisory p.130).*

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-017	GB	BLACK CREEK	MULLINS-GAPWAY

NPDES Program

Active NPDES Facilities

RECEIVING STREAM *FACILITY NAME* *PERMITTED FLOW @ PIPE (MGD)*	*NPDES#* *TYPE* *COMMENT*
WHITE OAK CREEK CITY OF MULLINS/WHITE OAK CK WWTP PIPE #: 001 FLOW: 2.75	SC0029408 MAJOR DOMESTIC
LITTLE REEDY CREEK APAC-CAROLINA/RAINES PLT PIPE #: 001 FLOW: M/R	SCG730025 MINOR INDUSTRIAL
BLACK CREEK SUPERIOR SAND LLC/BLACK CREEK MINE PIPE #: 001 FLOW: M/R	SCG730635 MINOR INDUSTRIAL
BROWN SWAMP BAKER BROTHERS/HARRELSON MINE PIPE #: 001 FLOW: M/R	SCG730120 MINOR INDUSTRIAL
BROWN SWAMP TRIBUTARY T & J BUILDERS INC./TODD MINE PIPE #: 001 FLOW: M/R	SCG730549 MINOR INDUSTRIAL
GILES BAY TRIBUTARY SANDLANDS C&D LANDFILL PIPE #: 001 FLOW: M/R	SCG730098 MINOR INDUSTRIAL
HUNTING SWAMP TRIBUTARY COASTAL SAND, LLC/BRUTON MINE PIPE #: 001 FLOW: M/R	SCG731007 MINOR INDUSTRIAL
LITTLE PEE DEE RIVER TRIBUTARY CAROLINA SAND/PEE DEE MINE PIPE #: 001 FLOW: M/R	SCG730564 MINOR INDUSTRIAL
DWIGHT CREEK WEAVER CO./CANNON SPRINGS PIPE #: 001 FLOW: M/R	SCG730562 MINOR INDUSTRIAL

BOYD CANAL CAVU INC./BUCK MINE PIPE #: 001 FLOW: M/R	SCG730036 MINOR INDUSTRIAL
BOYD CANAL G & G MINING CO./G & G MINE PIPE #: 001 FLOW: M/R	SCG730482 MINOR INDUSTRIAL
LITTLE PEE DEE RIVER TRIBUTARY DIVERSIFIED LCC/DIVERSIFIED MINE PIPE #: 001 FLOW: M/R	SCG730679 MINOR INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME ***FACILITY TYPE***	***PERMIT #*** ***STATUS***
MARION COUNTY LANDFILL MUNICIPAL	DWP-068 CLOSED
MARION COUNTY C&D LANDFILL C&D	341001-1201 ACTIVE
MARION COUNTY WOOD CHIPPING COMPOSTING	341001-3001 ACTIVE
MARION COUNTY LANDFILL MUNICIPAL	341001-1101 INACTIVE
JOHN E TAYLOR C&D LANDFILL C&D	PROPOSED ----------
G&G MINING CO. COMPOSTING SITE COMPOSTING	262667-3001 ACTIVE
SANDLANDS C&D LANDFILL C&D	342729-1201; 342729-1202 ACTIVE
CITY OF MULLINS MUNICIPAL	041101-1102 INACTIVE
CITY OF MULLINS SANITARY LANDFILL MUNICIPAL	--------- INACTIVE
CITY OF MULLINS C&D	341002-1201 ACTIVE

Land Application Sites

LAND APPLICATION SYSTEM ***FACILITY NAME***	***ND#*** ***TYPE***
SPRAYFIELD TOWN OF CENTENARY	ND0069361 DOMESTIC
PERCOLATION LAGOON LOCUST TREE DEVELOPMENT	ND0080721 DOMESTIC

Mining Activities

MINING COMPANY ***MINE NAME***	***PERMIT #*** ***MINERAL***
CAROLINA SAND, INC. BRITTONS NECK MINE	0725-67 SAND
OUTBACK SOURCE, LLC BLACK ISLAND PRESERVE 1	1725-67 SAND/CLAY
COASTAL SAND LLC LARRIMORE MINE	1713-67 SAND
SANDHILLS C&D LLC CREPE MYRTLE MINE	1762-67 SAND
APAC-ATLANTIC, INC. RAINS	0977-67 SAND
SUPERIOR SAND LLC SUPERIOR SAND MINE	1003-51 SAND
DALES LAND CONSTRUCTION LLC ALLEN DEW MINE	1573-51 SAND
WEAVER CO., INC. CANNON SPRING MINE	0467-51 LIMESTONE
CAROLINA SAND, INC. PEE DEE MINE	0707-67 SAND
G & C MINING CO., INC. G & C MINE	0222-51 LIMESTONE
CAVU, INC. BUCK MINE	1046-51 SAND
SANDLANDS C&D, LLC BRITTONS NECK NO.2	1146-67 SAND/CLAY
D & L SITEWORK, INC. CATES BAY HWY MINE	1562-51 SAND
WEAVER CO., INC. CANNON SPRING MINE	1176-51 SAND; SAND/CLAY
BURNIE F. JORDAN JORDAN'S DIRT PIT	1280-51 SAND
T & J BUILDERS, INC. TODD MINE	1553-51 SAND
JAYCO, INC. RICHARDSONS LAKE	1596-67 SAND
DIVERSIFIED, LLC DIVERSIFIED MINE	1581-67 SAND

Water Quantity

Portions of this watershed fall within the Waccamaw Capacity Use Area and large groundwater uses must be reported (see Capacity Use Program p.27).

Growth Potential

There is a low potential for growth in this watershed, which contains the Towns of Centenary and Rains, and a portion of the City of Mullins. The Town of Aynor is adjacent to the watershed. A portion of the U.S. Hwy. 501 corridor, running from the City of Marion to the City of Conway, crosses this watershed. Water infrastructure is located in and around the Town of Aynor, but only the U.S. Hwy. 501 corridor in the Town of Aynor is sewered. There are plans to construct sewerage infrastructure along U.S. Hwy. 501 from Aynor to Conway. It is likely that additional residential, commercial, and industrial development will occur along this corridor in the future. U.S. Hwy. 76, between the Cities of Marion and Mullins, has both water and sewer services and prime industrial properties may encourage commercial and industrial growth in the watershed. There is a relatively extensive rural water system serving the watershed, and an extension of this system into the Britton's Neck area is scheduled over the next several years. The proposed Preferred Alternative route of I-73 (Southern Corridor) would cross this watershed and could bring some growth to the area, especially around interchanges.

Watershed Restoration and Protection

Total Maximum Daily Loads (TMDLs)

A TMDL was developed by SCDHEC and approved by EPA for ***White Oak Creek*** water quality monitoring site ***PD-037*** to determine the maximum amount of fecal coliform bacteria it can receive and still meet water quality standards. Fecal coliform sources may include a combination of nonpoint sources including stormwater runoff from the Town of Mullins, failing septic systems, and both pets and wildlife. The TMDL states that a 91% reduction in fecal coliform loading is necessary for the stream to meet the water quality standard.